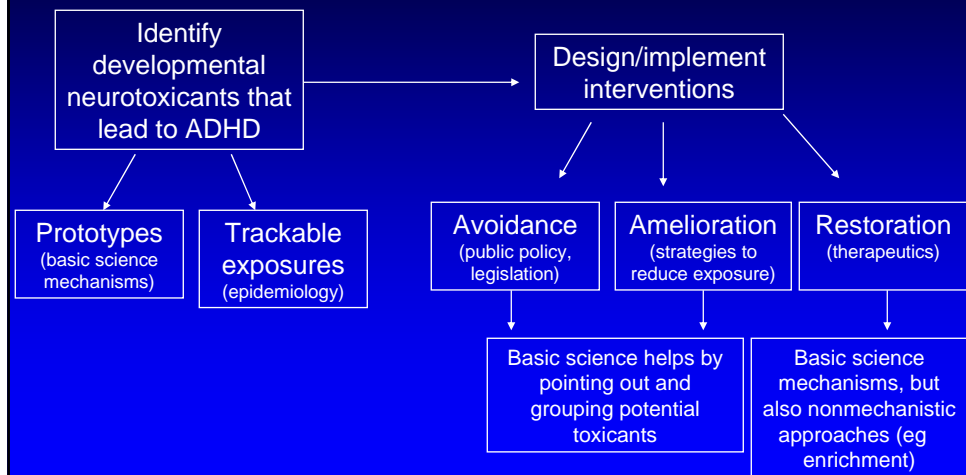


## What are the Objectives?



## What are the Impediments?

- Thousands of neurotoxic chemicals
- Most damage developing brain by hit-and-run mechanisms
  - no persistent biomarkers compare with Pb
- Epidemiological approach limited to those most trackable
  - not necessarily those most damaging or mechanistically demonstrable
- Why ADHD and not other (cognitive, affective, conduct disorders)
  - what would the Pb story have been like with only a single a priori measure?
  - neurotransmitter mechanisms suggest "clusters" of effects
  - example - 5HT and affective/appetitive/sleep - outcomes might link depression, obesity

## **What are the Potential Approaches?**

- Focus on exposures that are amenable both to epidemiology and basic science mechanisms
- Develop an animal model of ADHD vs. focus on common mechanisms?
- Both retrospective and prospective approaches (clinical and basic)
- Example - maternal smoking during pregnancy and damage to DA/5HT
- Example - OPs ditto
- Test strategies for amelioration/restoration in animal models
- But: need flexibility - the focus may change from ADHD to other outcomes